

# Program Change Request

## New Program Proposal

Date Submitted: 02/27/25 9:13 am

Viewing: : **Climate Resilience and Adaptation**

**Minor**

Last edit: 02/27/25 9:13 am

Changes proposed by: jbazaz

Are you completing this form on someone else's behalf?

Yes

Requestor:

### In Workflow

1. **AOES Chair**
2. **ESP UG Committee**
3. **ESP Chair**
4. **SC Curriculum Committee**
5. SC Assistant Dean
6. Assoc Provost- Undergraduate
7. Registrar:Create Code
8. Registrar-Programs: Duration
9. Registrar-Programs

### Approval Path

1. 02/26/25 4:17 pm  
Mark Uhen  
(muhen): Rollback to Initiator
2. 02/27/25 9:15 am  
Mark Uhen  
(muhen): Approved for AOES Chair
3. 02/27/25 9:16 am  
Yoonsung Kim  
(ykih): Approved for ESP UG Committee
4. 02/27/25 9:17 am  
Gad Perry  
(gperry23): Approved for ESP Chair

Name	Extension	Email
Barry Klinger	9227	bklinger@gmu.edu

**Effective Catalog:** 2025-2026  
**Program Level:** Undergraduate  
**Program Type:** Minor  
**Title:** Climate Resilience and Adaptation Minor

**Banner Title:** Clim Resilience Adaptat Minor

**Is this a retitling of an existing program?** No

**Registrar’s Office Use Only – Program Start Term**

**Registrar/OAPI Use Only – SACSCOC Status**

**College/School:** College of Science

**Department / Academic Unit:** Atmospheric, Oceanic, & Earth Sciences

**Jointly Owned Program?** Yes

**Participating Colleges**

	<b>College</b>
1	College of Science

**Participating Departments**

	<b>Department</b>
1	Environmental Science & Policy

**Justification**

What: Creating a new minor.

Why: Climate-related disasters in the United States resulting in losses exceeding \$1 billion each are increasing, with total losses over the past quarter century of over \$2.7 trillion. Virginia alone has suffered hundreds of multi-million-dollar disasters resulting from extreme weather and climate change. The increasing severity and frequency of climate change impacts on communities worldwide have created a need for a climate-literate workforce: professionals with the knowledge and skills required to design, develop, and implement climate adaptation and resilience solutions.

To address this need, a new undergraduate minor in Climate Resilience and Adaptation is proposed that will provide students with a transdisciplinary and action-oriented view of one of the most serious challenges facing humanity today. The Climate Resilience and Adaptation minor will equip students with the skills they need to understand: how and why the climate is changing; the current and expected impacts of that change; how to develop and assess adaptation strategies to enhance communities’ climate readiness; and how to help societies and ecosystems gain resilience to future impacts of climate change for generations to come. Climate resilience and adaptation encompass a wide range of disciplines; environmental science, economics, public policy, public health, and engineering are just a few. Therefore, the minor includes 2 core classes (1 each from AOES, including a lecture and lab section, and ESP departments) and 3 or more electives in subject(s) of interest to the student. The minor also includes practical experience which can be an internship, independent research, or capstone course.

## Catalog Published Information

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**Total Credits Required:** Total credits: 16-18

**Registrar's Office Use Only - Program Code:**

**Registrar/IRR Use Only – Program CIP Code**

**Admission Requirements:**

**Program-Specific Policies:**

## Policies

Eight credits of coursework must be unique to the minor. For policies governing all minors, see [AP.5.3.4 Minors](#).

**Degree Requirements:**

Students should refer to the [Admissions & Policies](#) tab for specific policies related to this program. Students must successfully complete the following coursework with a minimum GPA of 2.00.

## Foundation Courses

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<a href="#">CLIM 101</a> & <a href="#">CLIM 103</a>	Global Warming: Weather, Climate, and Society ( <a href="#">Mason Core</a> ) and Global Warming: Weather, Climate, and Society Laboratory ( <a href="#">Mason Core</a> )	4
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[EVPP 490](#) Special Topics in Environmental Science and Policy (when the topic is "Climate Change Adaptation Planning and Assessment")

3

Total Credits

7

## Practical Experience

Students have the option of completing this requirement via an internship, an independent research project, or a capstone course: 3

### Internship <sup>1,2</sup>

<a href="#">ANTH 495</a>	Internship
<a href="#">BUS 492</a>	Internship in Business
<a href="#">CLIM 409</a>	Research Internship
<a href="#">COMM 450</a>	Internship in Communication
<a href="#">ECON 493</a>	Capstone Internship ( <a href="#">Mason Core</a> )
<a href="#">EVPP 494</a>	Internship
<a href="#">GOVT 480</a>	Internship
<a href="#">INTS 490</a>	Internship
<a href="#">SOC 416</a>	Internship in Sociology I ( <a href="#">Mason Core</a> )

### Independent Research Project <sup>1</sup>

<a href="#">ANTH 450</a>	Ethnographic Research Methods
<a href="#">CEIE 490</a>	Civil Engineering Senior Design Project I ( <a href="#">Mason Core</a> )
<a href="#">CEIE 491</a>	Civil Engineering Senior Design Project II ( <a href="#">Mason Core</a> )
<a href="#">CONF 370</a>	Internship Field Experience
<a href="#">CONF 375</a>	Special Programs Field Experience
<a href="#">CONF 385</a>	International Field Experience
<a href="#">INTS 498</a>	Experiential Learning
<a href="#">SYST 490</a>	Senior Design Project I
<a href="#">SYST 495</a>	Senior Design Project II ( <a href="#">Mason Core</a> )

### Capstone Course

<a href="#">EVPP 480</a>	Sustainability in Action ( <a href="#">Mason Core</a> )
<a href="#">GCH 465</a>	Community Health Capstone ( <a href="#">Mason Core</a> )

<a href="#">GEOL 420</a>	Earth Science and Policy ( <a href="#">Mason Core</a> )
<a href="#">GEOL 480</a>	Internship
<a href="#">GGG 485</a>	Capstone in Geography and Geoinformation Science
<a href="#">PSYC 499</a>	Senior Thesis

Total Credits

3

1

The proposed project or internship must be approved by the Climate Resilience and Adaptation Coordinator and the student's academic advisor.

Projects or internships should meet at least one of the following criteria:

- Support climate readiness efforts of local partners,
- Contribute to regional or state-wide assessment of climate vulnerabilities, or
- Contribute to regional or state-wide opportunities to increase resilience

2

George Mason's [Virginia Climate Center](#) at Mason can facilitate student connections with potential mentors and identify suitable placements for internships.

## Elective Courses

Select 6-8 credits from the following:

6-8

<a href="#">ANTH 370</a>	Environment and Culture
<a href="#">ANTH 394</a>	Archaeology of Climate Change
<a href="#">BIOL 301</a>	Biology and Society ( <a href="#">Mason Core</a> )
<a href="#">BIOL 379</a>	RS: Ecological Sustainability ( <a href="#">Mason Core</a> )
<a href="#">BUS 200</a>	Global Environment of Business ( <a href="#">Mason Core</a> )
<a href="#">BUS 295</a>	Business Models For Sustainability
<a href="#">CEIE 100</a>	Environmental Issues and Solutions Around the World ( <a href="#">Mason Core</a> )
<a href="#">CEIE 441</a>	Engineering for Climate Adaptation
<a href="#">CEIE 445</a>	Flood Hazards Engineering and Adaptation
<a href="#">CEIE 452</a>	Climate Change Engineering and Policy
<a href="#">CLIM 102</a>	Introduction to Global Climate Change Science ( <a href="#">Mason Core</a> )
<a href="#">CLIM 111</a>	Introduction to the Fundamentals of Atmospheric Science ( <a href="#">Mason Core</a> )
<a href="#">CLIM 312</a>	Physical Climatology
or <a href="#">GGG 312</a>	Physical Climatology
<a href="#">CLIM 314</a>	Severe and Extreme Weather

<a href="#">CLIM 319</a>	Air Pollution
<a href="#">CLIM 440</a>	Climate Dynamics
<a href="#">COMM 433</a>	Environmental Communication, Campaigns, and Social Movements
<a href="#">CONF 300</a>	Conflict Resolution Techniques and Practice
<a href="#">CONF 330</a>	Community, Group, and Organizational Conflict Analysis and Resolution
<a href="#">CONF 340</a>	Global Conflict Analysis and Resolution ( <a href="#">Mason Core</a> ).
<a href="#">CONF 347</a>	Mobilizing for Change and Justice
<a href="#">ECON 105</a>	Environmental Economics for the Citizen ( <a href="#">Mason Core</a> )
<a href="#">ECON 309</a>	Economic Problems and Public Policies
<a href="#">ECON 335</a>	Environmental Economics
<a href="#">ECON 435</a>	Economics of Energy
<a href="#">EVPP 322</a>	Business and Sustainability
<a href="#">EVPP 336</a>	Tackling Wicked Problems in Society the Environment ( <a href="#">Mason Core</a> )
<a href="#">EVPP 337</a>	Environmental Policy Making in Developing Countries ( <a href="#">Mason Core</a> )
<a href="#">EVPP 361</a>	Introduction to Environmental Policy
<a href="#">EVPP 362</a>	Intermediate Environmental Policy
<a href="#">EVPP 378</a>	RS: Ecological Sustainability ( <a href="#">Mason Core</a> )
<a href="#">EVPP 432</a>	Energy Policy
<a href="#">EVPP 434</a>	Food-Energy-Water-Climate Nexus
<a href="#">EVPP 436</a>	Politics of Climate Change Governance
<a href="#">EVPP 442</a>	Urban Ecosystems and Processes
<a href="#">EVPP 480</a>	Sustainability in Action ( <a href="#">Mason Core</a> )
<a href="#">GCH 305</a>	Introduction to OneHealth
<a href="#">GCH 360</a>	Health and Environment
<a href="#">GEOL 120</a>	The Changing Ocean ( <a href="#">Mason Core</a> )
<a href="#">GEOL 121</a>	The Changing Ocean Laboratory ( <a href="#">Mason Core</a> )
<a href="#">GEOL 305</a>	Environmental Geology ( <a href="#">Mason Core</a> )
<a href="#">GEOL 332</a>	Paleoclimatology
<a href="#">GGS 103</a>	Human Geography ( <a href="#">Mason Core</a> )

<a href="#"><u>GGG 302</u></a>	Global Environmental Hazards
<a href="#"><u>GGG 303</u></a>	Geography of Resource Conservation ( <a href="#"><u>Mason Core</u></a> ).
<a href="#"><u>GGG 304</u></a>	Population Geography ( <a href="#"><u>Mason Core</u></a> ).
<a href="#"><u>GGG 306</u></a>	Urban Geography
<a href="#"><u>GGG 307</u></a>	Geographic Approaches for Sustainable Development
<a href="#"><u>GGG 354</u></a>	Data Analysis and Global Change Detection Techniques
<a href="#"><u>GLOA 388</u></a>	Global Health and Development
<a href="#"><u>GOVT 352</u></a>	Responsible Innovation
<a href="#"><u>GOVT 357</u></a>	Urban Planning
<a href="#"><u>GOVT 361</u></a>	Introduction to Environmental Policy
<a href="#"><u>GOVT 362</u></a>	Intermediate Environmental Policy
<a href="#"><u>GOVT 364</u></a>	Public Policy Making
<a href="#"><u>INTS 102</u></a>	Global Networks and Communities ( <a href="#"><u>Mason Core</u></a> ).
<a href="#"><u>INTS 210</u></a>	Sustainable World ( <a href="#"><u>Mason Core</u></a> ).
<a href="#"><u>INTS 211</u></a>	Introduction to Conservation Studies ( <a href="#"><u>Mason Core</u></a> ).
<a href="#"><u>INTS 292</u></a>	Leadership for Sustainability
<a href="#"><u>INTS 304</u></a>	Social Movements and Community Activism ( <a href="#"><u>Mason Core</u></a> ).
<a href="#"><u>INTS 332</u></a>	Business and Sustainability
<a href="#"><u>INTS 334</u></a>	Environmental Justice ( <a href="#"><u>Mason Core</u></a> ).
<a href="#"><u>INTS 337</u></a>	Social Justice Consciousness and Action
<a href="#"><u>INTS 406</u></a>	Global Leadership ( <a href="#"><u>Mason Core</u></a> ).
<a href="#"><u>INTS 450</u></a>	Social Innovation in Action
<a href="#"><u>MGMT 454</u></a>	Social Impact and Entrepreneurship
<a href="#"><u>PHIL 243</u></a>	Global Environmental Ethics ( <a href="#"><u>Mason Core</u></a> ).
<a href="#"><u>PHIL 343</u></a>	Topics in Environmental Philosophy ( <a href="#"><u>Mason Core</u></a> ).
<a href="#"><u>PSYC 335</u></a>	Psychology of Creativity and Innovation
<a href="#"><u>PSYC 410</u></a>	The Psychology of Environmental Stewardship
<a href="#"><u>PSYC 427</u></a>	Community Engagement for Social Change ( <a href="#"><u>Mason Core</u></a> ).
<a href="#"><u>SOCI 332</u></a>	The Urban World ( <a href="#"><u>Mason Core</u></a> ).

[SOCI 352](#)

Social Problems and Solutions ([Mason Core](#))

[WMST 319](#)

Gender, Health, and Culture in the United States

Total Credits

6-8

**Retroactive Requirements Updates:**

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**Program Outcomes**

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Add

Is the

**OAPI Use Only – Determination of SACSCOC Impact**

Comments or Notes

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**Does this program cover material which crosses into another department?**

No

**Additional Attachments**

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**Reviewer Comments**

**Mark Uhen (muhen) (02/26/25 4:17 pm):** Rollback: Jim Kinter will send updates with more classes added.

**Additional Comments**



**Is this course required of all students in this degree program?**

%wi\_required.eshtml%

Key: 1113